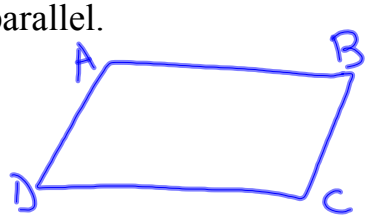
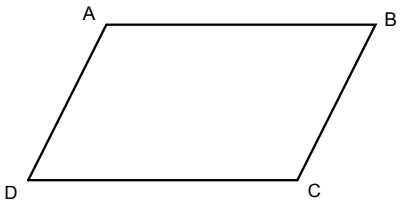
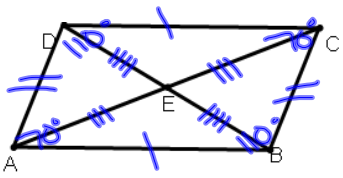
6.2 Parallelograms

Parallelogram--A quadrilateral with both pairs of opposite sides parallel.





1.



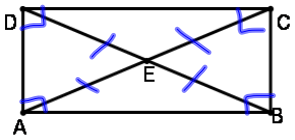
AD = 28 BC = 28 DC = 55 AB = 55

AE = 35 EC = 35 DE = 26 EB = 26

m∠ABC = 110° m∠BCD = 70°

m∠ADC = 110° m∠BAD = 70°

2.

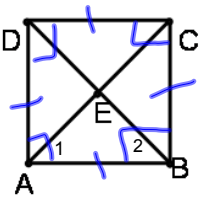


AD = 27 BC = 27 DC = 66 AB = 66

AE = 34 EC = 34 DE = 34 EB = 34

m∠ABC = 90° m∠BCD = 90°

m∠ADC = 90° m∠BAD = 90°

3. 

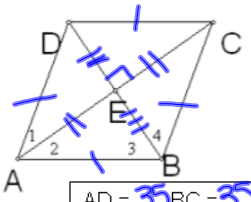
AD = 31 BC = 31 DC = 31 AB = 31

AE = 22 EC = 22 DE = 22 EB = 22

m∠ABC 90° m∠BCD = 90°

m∠ADC = 90° m∠BAD = 90°

m∠1 = 45° m∠2 = 45°

4. 

AD = 35 BC = 35 DC = 35 AB = 35

AE = 30 EC = 30 DE = 20 EB = 20

m∠ABC = 110° m∠BCD = 70°

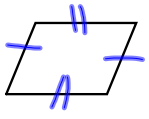
m∠ADC = 110° m∠BAD = 70°

m∠3 = 55° m∠1 = 35°
m∠4 = 55° m∠2 = 35°

Conclusions

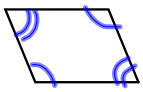
1. What can you conclude about the opposite sides of a parallelogram?

The opposite sides of a parallelogram are ≅ (congruent). (Thm 6.2)



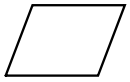
2. What can you conclude about the opposite angles of a parallelogram?

The opposite angles of a parallelogram are ≅ (congruent). (Thm 6.3)



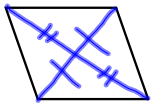
3. What can you conclude about the consecutive angles of a parallelogram?

The consecutive angles of a parallelogram are Supplementary
(compare m∠ABC & m∠BCD) (Thm 6.4)



4. What can you conclude about the diagonals of a parallelogram?

The diagonals of a parallelogram bisect each other. (Thm 6.5)



5. What type of shape is #2? Rectangle

6. What type of shape is #3? Square

7. What type of shape is #4? Rhombus

Open to p313
Look at 1-12 together

HW
p313-314
13-33